REMARKS

Claims 1 to 105 are pending in the application. The abstract of the disclosure has been objected to for being too long. Claims 1 to 105 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing particularly to point out and distinctly to claim the subject matter that Applicants regard as the invention. The subject matter of the claims has been indicated to be allowable over the closest prior art.

With respect to the objection to the abstract, the Examiner has stated that the abstract is too long. Applicants point out that the existing abstract is only 99 words. Assuming, however, that the difficulty is not with the number of words but with the amount of space the current abstract occupies, Applicants have replaced the former abstract with a new abstract, which deletes the last two occurrences of the

$$\begin{array}{c|c} R_2 & R_3 \\ \hline R_{(R_5)d} & (R_6)b \\ \hline \end{array}$$

formula, it being understood that the word "chromogen" refers to this formula in the latter two instances. Applicants believe that this amendment eliminates any possible ground for this objection.

Regarding the rejection under §112, second paragraph, the Examiner has stated that in claims 1 to 105, the point of attachment of metal to chromogen moieties is not defined, and queries whether it is attached to the hetero ring atom Y, directly to the carbon atom of aryl rings, or substituted carbon, nitrogen, or oxygen atom, etc.?

Applicants point out that metals often form ionic compounds or coordination compounds and that the point of attachment to the chromogen may not be to any specific atom, as would happen with a covalent compound. The charge may be delocalized over the entire structure. In addition, the nature of the compound formed would depend upon the nature of the specific metal-containing moiety and chromogen moiety. Accordingly, Applicants are of the position that those of ordinary skill in the chemical arts would understand that the formula as drawn is sufficiently specific to define the subject matter that Applicants regard as the invention, especially when viewed in light of the specification, which provides substantial discussion of chromogens and metal moieties. Applicants accordingly respectfully request reconsideration and withdrawal of this ground for rejection.

Regarding the rejection under §112, second paragraph, the Examiner has stated that in claims 1, 10, and 105, the term "metal-containing moiety" is indefinite since it is not defined and that the point of attachment to the chromogen moiety is not defined.

As stated hereinabove, Applicants do not believe that it would be appropriate to limit the point of attachment of the metalcontaining moiety to the chromogen moiety to a specific atom, since in ionic and coordination compounds there may not be a specific atom to which the metal atom is bound, since the charge may be delocalized over the entire structure, and since this point of attachment may differ depending on the nature of the metal-containing moiety and the nature of the chromogen moiety. Regarding the definition of the metalcontaining moiety, Applicants point out that this term must be viewed in light of the specification, which, on pages 38 to 48 gives numerous examples of metal-containing moieties, including simple metal cations, metal ionic moieties, such as Me³⁺X- wherein Me represents a trivalent metal atom and X represents a monovalent anion, metal coordination compounds, heteropolyacids, and any other metal-containing moiety capable of forming a compound with at least two

$$\begin{array}{c} R_{2} \\ R_{1} \\ (R_{5})_{d} \\ \end{array}$$

$$\begin{array}{c} R_{3} \\ (R_{6})_{b} \\ \end{array}$$

$$\begin{array}{c} R_{3} \\ (R_{6})_{b} \\ \end{array}$$

$$\begin{array}{c} CA_{d-1} \\ (Q)_{d} \\ \end{array}$$

moieties, and states that by "capable of forming a compound with at least two

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chromogen moieties" is meant that the metal cation or metal-containing moiety can react with two or more

$$\begin{array}{c} R_{2} \\ R_{1} \\ (R_{5})_{d} \\ \end{array} \qquad \begin{array}{c} R_{3} \\ (R_{6})_{b} \\ \end{array} \qquad \begin{array}{c} R_{3} \\ (R_{6})_{b} \\ \end{array}$$

chromogen moieties to form a compound, and that any kind of association between the

$$\begin{array}{c} R_{2} \\ R_{1} \\ (R_{5})_{d} \\ \end{array} \qquad \begin{array}{c} R_{3} \\ (R_{6})_{b} \\ \end{array} \qquad \begin{array}{c} R_{3} \\ (R_{6})_{b} \\ \end{array}$$

chromogen moiety and the metal cation or metal-containing moiety to form a compound is suitable, including ionic compounds, covalent compounds, coordination compounds, and the like. Applicants believe that the term "metal-containing moiety", viewed in light of the specification, would be more than clear to one of ordinary skill in the art, and accordingly respectfully request reconsideration and withdrawal of this ground for rejection.

With respect to the rejection under §112, second paragraph, the Examiner has stated that in claims 1, 10, and 105, when variables R_1 and R_2 or R_3 and R_4 are joined together to form a ring, the size of the ring and the type and number of heteroatoms present in the ring are not defined. Applicants have not limited these aspects of the invention because they are not intended to be limited and need not be limited. With a §112, second paragraph rejection, the Examiner has an initial burden of establishing that one having ordinary skill in the art would have had difficulty ascertaining the subject matter applicant regards as his invention. In re Hammack, 427 F.2d 1378, 166 U.S.P.Q. 204 (C.C.P.A.

1970). The term in question, when read in light of the specification, must be reasonably precise. Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 231 U.S.P.Q. 81 (Fed. Cir. 1986). So long as one skilled in the art, upon viewing the specification, can understand what is being claimed, then the definiteness requirement of §112, second paragraph, has been satisfied. See, e.g., Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1 U.S.P.Q. 2d 1081 (Fed. Cir. 1986). Applicants believe that these claims in their present form clearly convey to one of ordinary skill in the art what is being claimed, and accordingly respectfully request reconsideration and withdrawal of this ground for rejection.

With respect to the rejection under §112, second paragraph, the Examiner has stated that in claims 1, 10, and 105, the terms "wherein R_1 , R_2 , R_3 , and R_4 can each be joined to a phenyl ring in the central structure" and "wherein R_5 , R_6 , and R_7 can each be joined to a phenyl ring in the central structure" are vague and indefinite since their meaning is not clear. Applicants disagree with this position. The central structure as drawn contains phenyl rings. The claim language clearly recites that the R groups can each be joined to a phenyl ring in the central structure. Applicants are of the position that one of ordinary skill in the art, equipped with the structure as drawn and this language, would clearly understand what is being claimed, and accordingly respectfully request reconsideration and withdrawal of this ground for rejection.

With respect to the rejection under §112, second paragraph, the Examiner has stated that in claims 1, 10, and 105, Applicants use the same variable "Y" to define positive charge as well as

to define it as a C, O, N, or S atom in the tricyclic ring, which is confusing, and suggests that Applicants use separate letters.

Applicants believe that the use of an uppercase "Y" in the tricyclic ring to represent a C, O, N, or S atom and a lowercase "y" to represent a positive charge is sufficient to avoid confusion to one of ordinary skill in the art, and accordingly respectfully request reconsideration and withdrawal of this ground for rejection.

With respect to the rejection under §112, second paragraph, the Examiner has stated that in claims 1, 10, and 105, the variable "z" is listed twice in the first formula on page 202, and questions whether it is the same or a different "z". This lowercase "z" is used twice to mean the same number. In the first formula in claim 1, the number of chromogen moieties is intended to match the number of "A" anions.

With respect to the rejection under §112, second paragraph, the Examiner has stated that claims 29, 30, 34, 35, 39, 40, 44, and 45 recite the term "hetero atom" and that this term does not have sufficient antecedent basis in the claims from which these claims depend.

Applicants disagree with this position. These claims recite the presence or absence of hetero atoms in alkyl, aryl, arylalkyl, or alkylaryl groups in at least one of R₁, R₂, R₃, and R₄. Each finds antecedent basis for the alkyl, aryl, arylalkyl, or alkylaryl groups it recites in the claims from which it depends. The hetero atoms it recites are possibly present in these groups as defined in the specification at, for example, page 48, line 8 to page 50, line 11, which recites the possibility of hetero atoms such as oxygen, nitrogen, sulfur, silicon, phosphorus, and

the like in these groups for R_1 , R_2 , R_3 , and R_4 . Accordingly, Applicants respectfully request reconsideration and withdrawal of this ground for rejection.

With respect to the rejection under §112, second paragraph, the Examiner has stated that in claim 48, it is not clear to which phenyl ring is being referred. Applicants disagree with this position. The central structure as drawn contains phenyl rings. The claim language clearly recites that the R groups can each be joined to a phenyl ring in the central structure. Applicants have not further limited the claim because it need not be further limited and is not intended to be further limited. Applicants are of the position that one of ordinary skill in the art, equipped with the structure as drawn and this language, would clearly understand what is being claimed, and accordingly respectfully request reconsideration and withdrawal of this ground for rejection.

With respect to the rejection under §112, second paragraph, the Examiner has stated that claim 88 is a substantial duplicate of claim 86, and that it appears that claim 88 should depend upon claim 87. Applicants have amended claim 88 to depend on claim 87, thereby eliminating this ground for rejection.

Applicants believe that the foregoing amendments and distinctions place the claims in condition for allowance, and accordingly respectfully request reconsideration and withdrawal of all grounds for rejection.

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In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to call Applicant(s) attorney, Judith L. Byorick, at Telephone Number (585) 423-4564, Rochester, New York.

Respectfully submitted,

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